

Job satisfaction and stress levels among anaesthesiologists of south India

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ABSTRACT

Background: Stress being high among practicing anaesthesiologists has effects on the quality of life. Methods to mitigate the stress have to be ensured to achieve job satisfaction. **Methods:** A survey was conducted through a questionnaire to know the various aspects of job satisfaction and job stress. The results of the data obtained were analyzed. **Results:** An anaesthetists work area may vary from a small private hospital to a large tertiary centre. Depending on the number of anaesthetists in a particular hospital, the working hours and on call duties would be distributed. Overworked anaesthetists are prone to burnout due to sleep deprivation. This could lead to fatigue related error. Lesser the number of anaesthetists would mean less support from colleagues in the event of complications. Having a good rapport with surgical colleagues also helps to prevent stress. Anaesthesiologists should have adequate monitors to avoid error in judgement. Chronic stress has serious health hazards. Keeping updated with latest developments in our field helps to improve the quality of care provided. Anaesthetists should also receive the recognition and remuneration due to them. **Conclusion:** To improve the quality of care provided to a patient, anaesthesiologists must cope with job stress. An anaesthetist must enjoy the work rather than be burdened by it.

Key words: Anaesthesiologists, burnout, job satisfaction, quality of life, stress

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INTRODUCTION

Anaesthesia is an extremely stressful specialty as emphasised by studies conducted abroad.^[1] Extreme level of stress predisposes the anaesthetist to burnout, fatigue, substance abuse and suicide.^[2] Studies show that in the medical profession, anaesthetists are at a higher risk of suicides.^[3] The practice of anaesthesia in India is different as compared to the western countries. There, a variation in the facilities available in different places that an anaesthetist has to provide care, also anaesthetists are dependent on the surgeon. The degree of stress that an anaesthetist in India suffers is due to interplay of factors like the type and quality of work, his/her relationship with surgeons, and the support he/she receives from colleagues and family.

Hence, we conducted our survey to study the level of job satisfaction, the lifestyle and the quality of life among practicing anaesthetists in India, based on the findings of which recommendations can be made for improvement.

METHODS

A questionnaire was prepared and distributed to 125 delegates at the South Zone Conference. A total of 115 delegates completed the questionnaire. The questionnaire consisted of main questions and subquestions. The main questions dealt with demographic profile, details of hospital worked, workload, job stress, areas worked, and relationship with surgeons, ailments, degree of professional and personal support, continuing medical education and areas where anaesthetic care was provided. These were later subdivided into subquestions. The format of the questionnaire is shown in Table 1. The details were entered in the statistics package for social sciences (SPSS) programme and the statistics were performed using frequency statistics.

RESULTS

One hundred and fifteen questionnaires were completed and returned and thus included in the analysis.

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Table 1: Proforma

Age					
Sex					
Qualifications	<input type="checkbox"/> DA	<input type="checkbox"/> MD	<input type="checkbox"/> Dip	<input type="checkbox"/> NB	<input type="checkbox"/> Others
Place of work					
Medical college	<input type="checkbox"/> Govt	<input type="checkbox"/> Pvt			
Pvt Hospital	<input type="checkbox"/> Small	<input type="checkbox"/> Medium	<input type="checkbox"/> Large	<input type="checkbox"/> Teaching	<input type="checkbox"/> Nonteaching
Health service	<input type="checkbox"/> Dist	<input type="checkbox"/> Taluk	<input type="checkbox"/> PHC		
No of anaesthetists in your hospital	<input type="checkbox"/> 11–20	<input type="checkbox"/> 21–30	<input type="checkbox"/> 31–40	<input type="checkbox"/> 41–50	
No. of anaesthesia trainees in your hospital	<input type="checkbox"/> 1–10	<input type="checkbox"/> 11–20	<input type="checkbox"/> 21–30	<input type="checkbox"/> 31–40	<input type="checkbox"/> 41–50
Work load					
No. of anaesthetics per month	<input type="checkbox"/> <500	<input type="checkbox"/> 500–1000	<input type="checkbox"/> 1000–2000	<input type="checkbox"/> >3000	
Working h/day	<input type="checkbox"/> 4–5	<input type="checkbox"/> 5–8	<input type="checkbox"/> 8–12	<input type="checkbox"/> >13	
On call frequency	<input type="checkbox"/> Daily	<input type="checkbox"/> Once in 2–3 days	<input type="checkbox"/> Once in 4–7 days	<input type="checkbox"/> Once a fortnight	
Remuneration	<input type="checkbox"/> Poor	<input type="checkbox"/> Satisfactory	<input type="checkbox"/> Good	<input type="checkbox"/> Excellent	
Job stress					
Do you think you are overworked?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Often	<input type="checkbox"/> Rarely	
Do you feel stressed at job?	<input type="checkbox"/> Rarely	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Often		
Involvement in extra-anaesthetic medical work	<input type="checkbox"/> Acute pain management	<input type="checkbox"/> Chronic pain management	<input type="checkbox"/> Intensive care	<input type="checkbox"/> Teaching of CPR	<input type="checkbox"/> Trauma care
Relationship with the surgeons	<input type="checkbox"/> Excellent	<input type="checkbox"/> Good	<input type="checkbox"/> Difficult at times	<input type="checkbox"/> Poor	
Legal					
Was/is there any professional litigation against you?	<input type="checkbox"/> Yes	<input type="checkbox"/> No			
Ailments					
Do you suffer any of the following?	<input type="checkbox"/> Diabetes	<input type="checkbox"/> Hypertension	<input type="checkbox"/> CAD	<input type="checkbox"/> Backache	<input type="checkbox"/> Varicose veins
	<input type="checkbox"/> Acid peptic disorders	<input type="checkbox"/> Depression	<input type="checkbox"/> Others		
Public					
Do you feel your services as an anaesthesiologist are adequately recognized by society?	<input type="checkbox"/> Yes	<input type="checkbox"/> No			
Professional support					
Do you have someone to provide professional help and support should you face a complication?	<input type="checkbox"/> Yes	<input type="checkbox"/> No			
Monitoring					
Which of the following monitoring facilities do you have?	<input type="checkbox"/> EtCO ₂	<input type="checkbox"/> ECG	<input type="checkbox"/> SpO ₂	<input type="checkbox"/> NIBP	<input type="checkbox"/> IBP
	<input type="checkbox"/> Temp				
Family					
Marital status					
Are you able to spend enough time with family?	<input type="checkbox"/> Yes	<input type="checkbox"/> No			
Do you find anaesthesia is "hours of boredom with moments of terror"	<input type="checkbox"/> Yes	<input type="checkbox"/> No			
Patients					
Do you establish rapport with patients before surgery?	<input type="checkbox"/> Yes	<input type="checkbox"/> No			
Do you follow-up patients after surgery?	<input type="checkbox"/> Yes	<input type="checkbox"/> No			
Academics					
Do you attend academic programmes in Anaesthesiology?	<input type="checkbox"/> Often	<input type="checkbox"/> Rarely	<input type="checkbox"/> Never		
Do you read journals, literature in Anaesthesiology?	<input type="checkbox"/> Often	<input type="checkbox"/> Rarely	<input type="checkbox"/> Never		
Do you keep updated using internet facilities?	<input type="checkbox"/> Yes	<input type="checkbox"/> No			
Type of surgeries done in your hospital	<input type="checkbox"/> General surgery	<input type="checkbox"/> Oncology	<input type="checkbox"/> Ophthalmology	<input type="checkbox"/> Ortho	<input type="checkbox"/> OBG
	<input type="checkbox"/> Paediatric	<input type="checkbox"/> Cardiothoracic	<input type="checkbox"/> Neurosurgery	<input type="checkbox"/> Laparoscopic	

Most of the anaesthetists were in the 25–35 year age group (45.2%) [Table 2]. 57.4% of the anaesthetists were females, indicating the higher preponderance of anaesthetists among the female gender in south India.

Thirty-five of them (30.4%) were diploma holders, with the remaining majority being MD ($n=29$), postgraduate trainees ($n=13$), diploma and MD ($n=20$), and the rest being qualified as DNB ($n=5$), MD and DNB ($n=3$), diploma with MD and DNB ($n=6$) and diploma with DNB ($n=4$).

As far as the number of anaesthetists in the hospital was concerned, 33% had 1–10 and 33.9% had 41–50, thereby indicating that they belonged to small setups or large referral institutes, mainly the teaching hospitals. The number of trainees was distributed mainly as 1–10 ($n=33$) and 41–50 ($n=20$). Twenty-one anaesthetists did not have trainees in their hospital.

In spite of working so hard, 26.1% said they received poor remuneration. Although 47.2% were satisfied with their earnings, only 1.7% claimed that they received excellent remuneration. This shows the disparity in the hours of work put in and the remuneration received [Figure 1]. Not very surprisingly, 41.7% of anaesthetists felt overworked most of the times and 29.6% felt overworked sometimes. If we combine the two, almost 71% felt overworked. About 50% felt stressed at some point of time or the other [Figure 2]. On surveying the number of hours they worked, we found that most of them used to work for 5–8 hours ($n=49$) and 8–12 hours ($n=33$). Thus, the daily working hours of most anaesthetists ranged between 5 and 12 hours.

In our study, 30.4–60% reported to have excellent to good relationship with surgeons. It is interesting to see that four of the anaesthetists were involved in litigation and five of the total had not given a response to the question regarding litigation.

What we find astonishing is the high prevalence of backache ($n=19$) amongst anaesthetists. Backache was followed by acid peptic disease ($n=14$), hypertension ($n=12$), and diabetes mellitus ($n=8$). Only four of the anaesthetists admitted to having depression. Coronary artery disease was reported by two anaesthetists.

In confirmation to the south Indian culture, 85.2% of the anaesthetists were married. However, only 61 of the anaesthetists could spare time for the family due to hectic work schedules. In spite of the stress,

Age in years	No. of respondents
25–35	52
36–45	25
46–55	30
55–65	8
Total	115

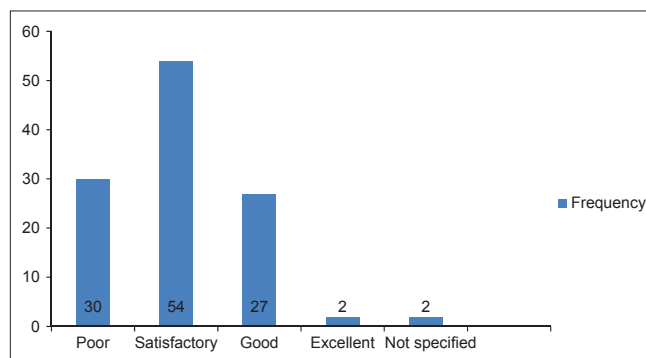


Figure 1: Quality of remuneration received

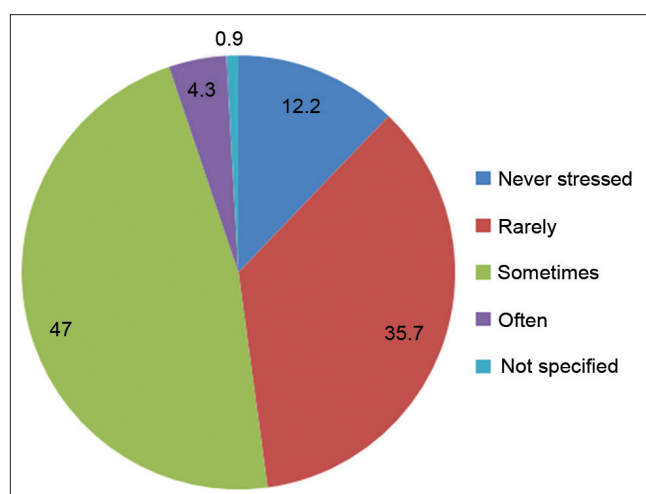


Figure 2: Percentage of anaesthetists feeling stressed

overwork and personal sacrifices that they made, an overwhelming number of them (82.6%) enjoyed their work and did not perceive anaesthesia as “hours of boredom with moments of terror”. Most anaesthetists established rapport with their patients and could follow-up on them in the postoperative period.

Nearly half of the anaesthetists felt that they did not get recognition for the services they rendered and their contribution was always under run in the team they worked in [Table 3].

DISCUSSION

Stress has been defined as a process by which certain situational demands are appraised by an individual as

Table 3: Analysis of results obtained

	Yes (%)	No (%)	Not specified (%)	Rarely
Working >8 h/day	44.4	54.7	0.9	–
On call schedule >2 days/wk	44.3	50.5	5.2	–
Establish rapport with patients preop	99.1	0.9	–	–
Follow-up of patients postop	88.7	11.3	–	–
Professional support	80.9	15.7	3.4	–
Litigation	3.5	92.2	4.3	–
Feeling of recognition	43.5	49.5	7	–
Frequency of attending conferences	93.9	–	–	6.1
Frequency of keeping updated	84.3	–	–	15.7

exceeding his own resources, resulting in undesirable health consequences.^[4] When the stressed person is a doctor, this can have profound implications on the patients as well as on his/her interpersonal relationships.

Most anaesthetists who responded to the survey worked in government or private medical colleges. This could be because anaesthetists in teaching institutions are more academically inclined and therefore attend academic programmes, or doctors working in other setups do not get relieved from clinical duties to attend such programmes.

In our study, we found that 18.3% of anaesthesiologists did not have any trainees in their hospital which could be the group working as freelancers or those in private hospitals. Hence, they were probably overworked. They were also probably the group who did not have professional support in the event of a complication. This is further strengthened by the fact that 21% were on call everyday and 22.6% were on call once in 2–3 days. According to the Association of Anaesthetists of Great Britain and Ireland Guidelines, disruption of normal circadian rhythms increases the likelihood of fatigue and shift work poses risk to performance.^[5]

Murray and Dodds investigated the effect of sleep deprivation on the level of vigilance and found that sleep deprivation leads to fatigue.^[6] The Australian Incident Study implicated human errors in 83% of incidents, and found that fatigue was a causative factor in 2.7%. Chronic sleep deprivation (in the first third of the night) is more likely to be seen in doctors who work frequent on calls or who have young children.^[6] Experience and training does not decrease the chances of a fatigue-related error.^[6] Gravenstein *et al.* found that

anaesthesiologists worked at least occasionally beyond the perceived self-limitations and they had made errors in the administration of anaesthesia due to fatigue.^[7] In a previous study, inherently difficult job situations (e.g. difficult intubation or recovery), interpersonal conflicts (e.g. lack of communication within the team, with the surgeon), and life career worries have been the cause of stress in anaesthesiologists.^[4] However, anaesthesiologists also reported high levels of job satisfaction, job challenge, work commitment and empowerment. This is known to negate the effect of stress.^[4] In our study, 80.9% anaesthetists reported some form of professional support when faced with complications. Only 3.5% of them were involved in litigations.

In a study conducted on Canadian postgraduate trainees, 68.1% felt stressed and 23.4% had thought about leaving the training programme.^[1] Trainee anaesthetists often feel inadequate at work and are exposed to stress.^[8] However, specialist anaesthetists have reported being content with their job.^[9] Inexperienced anaesthetists are at a greater risk of burnout.^[4] Resident burnout is associated with depression and problematic clinical performance.^[10] In trainee anaesthetists, the support provided by seniors not only helps in developing professional competence, but also helps them learn how to handle stress. Our study had 11.3% trainee anaesthetists who did not have the support of their senior colleagues.

In our study 30.4–60% of the anaesthetists reported to have excellent to good relationship with the surgeons, which is also a factor for stress among anaesthetists.^[4] Lack of respect from surgeons has been found to be an insignificant problem, easily solved by means of good communication.^[11]

Availability of adequate monitors in the intraoperative setting can help in decreasing the levels of stress experienced by anaesthesiologists. End-tidal capnograph has been described in the minimum monitoring standards, and hence is mandatory.^[12] It should be made available to all practicing anaesthesiologists.

Negative health consequences of stress include headache, stomach ache, ulcer, allergy and myocardial infarction, which were also found in our study. The high incidence of backache could be due to the fact that many of the anaesthetists were females or due to the prolonged hours of standing and the fact that

anaesthetists work in multitude of areas like the intensive care, cardiac arrest teams, pain management, labour analgesia, remote anaesthesia for radiotherapy, computed tomography (CT), magnetic resonance imaging (MRI) etc. Many of them also travel long distances in the private setup. High incidence of acid peptic disease could be due to working in shift duty, ingestion of caffeine and alcohol. The low reporting of depression may be due to the social stigma associated with it in India or because most of them were married. Studies have shown that residents who were married (65%) or in a common-law relationship (30%) had less stress.^[1]

Coping with stress involves efforts at solving problems that arise to cause stress. It also includes the ways the stressors may be turned into positive challenges, and thus their negative physical and psychological effects may be reduced.^[13]

According to the Audit Commission report at London, anaesthesia has been described as a “poorly understood medical specialty”. Many patients do not realise that anaesthetists are doctors,^[13] which can be solved by effective communication.

Anaesthetists’ activities affect up to two-thirds of the income generated, yet accounting for only 3% of the salaries paid in many hospitals.^[14] In our study also, it was observed that 26.1% of the anaesthetists received poor remuneration. It also shows the disparity in the number of hours of work they put in and the remuneration they receive.

Reading journals and updating our knowledge is an important aspect of our career. Attending conferences as well as interacting with other members of our specialty help us achieve this goal.

CONCLUSION

A few recommendations may be made based on our findings, which are as follows:

1. Interpersonal relationships, soft skills, communication skills and a high emotional quotient are required for the practicing anaesthesiologists to function smoothly in a team.
2. Keeping updated in current developments and insisting on minimum monitoring standards are of vital importance.
3. Trainees need role models who practice

anaesthesia with a focus on quality and also cope with stress effectively.

4. Having a good network of professional associates helps in times of crisis for moral support and professional help.
5. Sleep-deprived anaesthesiologists should never be pressurised to provide anaesthesia.
6. In addition, anaesthesiologists should affirm their role as perioperative physician and also rightfully assume leadership role in training of personnel in basic life support (BLS) and advanced cardiac life support (ACLS).
7. Taking time to establish rapport with patients’ family before and after Anaesthesia makes anaesthesiologists more visible and hence more likely to be recognised and appreciated.
8. Anaesthesiologists should take care of their health and take steps like periodic vacation with family to destress and relax.

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